(b) Except as set forth in §74.931 (c)(4) and (d)(3), directive transmitting antennas shall be used whenever feasible so as to minimize interference to other licensees. The radiation pattern shall be designed to minimize radiation in directions where no reception is intended. When an ITFS station is used for point-to-point service, an appropriate directional antenna must be used.

(c) The use of elevated receiving antennas is preferable to the use of elevated transmitting antennas or greater power to provide the desired service.

(d) The use of vertical or horizontal plane polarization or right-hand or left-hand rotating (circular) polarization may be used to minimize the hazard of harmful interference between systems. The Commission reserves the right to specify the polarization to be used.

(e) The power gain compared to an isotropic antenna and the directive properties of the transmitting and receiving antennas proposed to be employed, as well as the geometric distribution of the transmitting and receiving points, shall be supplied with each application for a new ITFS fixed station or for changes in the antenna facilities of an existing station.

[28 FR 13731, Dec. 14, 1963, as amended at 48 FR 9012, Mar. 3, 1983; 49 FR 32596, Aug. 15, 1984; 50 FR 26761, June 28, 1985; 52 FR 3806, Feb. 6, 1987; 58 FR 44951, Aug. 25, 1993; 63 FR 65118, Nov. 25, 1998]

§74.938 Transmission standards.

The width of an ITFS channel is 6 MHz. However, the licensee may subchannelize its authorized bandwidth, provided that digital modulation is employed and the aggregate power does not exceed the authorized power for the channel, and may utilize all or a portion of its authorized bandwidth for ITFS response stations authorized pursuant to §74.939. The licensee may also, jointly with other licensees, transmit utilizing bandwidth in excess of its authorized bandwidth, provided that digital modulation is employed, all power spectral density requirements set forth in this part are met and the out-of-band emissions restrictions set forth in §74.936 are met at the edges of the channels employed.

[63 FR 65119, Nov. 25, 1998]

§74.939 ITFS response stations.

(a) An ITFS response station is authorized to provide communication by voice, video and/or data signals with its associated ITFS response station hub or associated ITFS station. An ITFS response station may be operated only by the licensee of the ITFS station, by any person or entity authorized by the ITFS licensee to receive point-to-multipoint transmissions over its channels, by any lessee of excess capacity, or by a subscriber of any lessee of excess capacity. The authorized channel may be divided to provide distinct subchannels for each of more than one response station, provided that digital modulation is employed and the aggregate power does not exceed the authorized power for the channel. An ITFS response station may also, jointly with other licensees, transmit utilizing bandwidth in excess of that authorized to the station, provided that digital modulation is employed, all power spectral density requirements set forth in this part are met, and the out-of-band emission restrictions set forth in §74.936 or paragraph (k) of this section are complied with.

(b) ITFS response stations that utilize the 2150–2162 MHz band pursuant to §74.902(f), the 2500–2686 MHz band, and/or the 125 kHz channels identified in paragraph (j) of this section may be installed and operated without an individual license, to communicate with a response station hub authorized under a response station hub license, provided that the conditions set forth in paragraph (g) of this section are complied with and that ITFS response stations operating in the 2150–2162 MHz and/or 2500–2686 MHz band(s) employ only digital modulation with uniform power spectral density in accordance with the Commission's Declaratory Ruling and Order, 11 FCC Rcd 18839 (1996).

(c) An applicant for a response station hub license shall:

(1) File FCC Form 331 with the Commission in Washington, DC, and certify on that form that it has complied with the requirements of paragraphs (c)(2)